### HALPRIN, MENDELSOHN & GOODMAN

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July 27, 1992

Ex Parte

Ms. Donna R. Searcy Secretary Federal Communications Commission 1919 M Street, N.W. Washington, D.C. 20554 RECEIVED

FEDERAL COMMUNICATIONS COMMISSION OFFICE OF THE SECRETARY

Re: <u>RM 7872</u>

Dear Ms. Searcy:

At a tutorial organized by Jonathan Levy of the Ofice of Plans and Policy, Mark Foster, Don Franco, Martin Elton, Martin Sperber and Bert Halprin met on July 21, 1992 with various representatives of the Common Carrier Bureau, the Office of Plans and Policy and the Commissioners' offices to make a presentation concerning the services that may become available if the Commission allocates spectrum in the 28 GHz band for local wireless broadband service as requested by Video/Phone in its attachment to comments on the Suite 12 Group petition for rulemaking. Enclosed is a set of the briefing materials presented at the meeting.

Sincerely,

Stephen L. Goodman

Counsel for Video/Phone

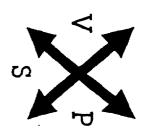
Systems, Inc.

cc: Mr. Jonathan Levy

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## Local Wireless Broadband Service



LWBS

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Video/Phone Systems, Inc. 1266 Main Street Stamford, CT 06902 Telephone: 203-353-0203

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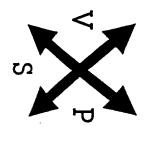
### What is LWBS?

- The lowest cost method of distributing broadband networks within metro areas.
- A fixed, rather than mobile, cellular pipeline operating in the millimeter wave band.
- Capable of delivering full duplex services.
- Utilizes 1000 MHz which may be subdivided into video, voice and data circuits.



### What is LWBS?

- Omnidirectional transmissions from central hubs can be received at an unlimited number of points within 3-6 miles.
- Small, inexpensive transceivers installed at customers' premises transmit return signals in same band using narrow beamwidth antennas.
- Transmissions may be analog or digital.
- Combines point-to-multipoint with multipoint-to-point transmissions via same paths.



### LWBS Offers...

Capacity
Quality
Duplex Capability
Diversity of Services

...equivalent to fiber



### The Economics of LWBS

- Because it is wireless, LWBS is less capitalintensive than wireline technologies (an LWBS signal passes all potential customers within the cell the moment each node is activated).
- And, without a requirement to wire past each premise in advance, investment is limited to customers only.
- Thus, LWBS minimizes capital and risk.



### The Economics of LWBS

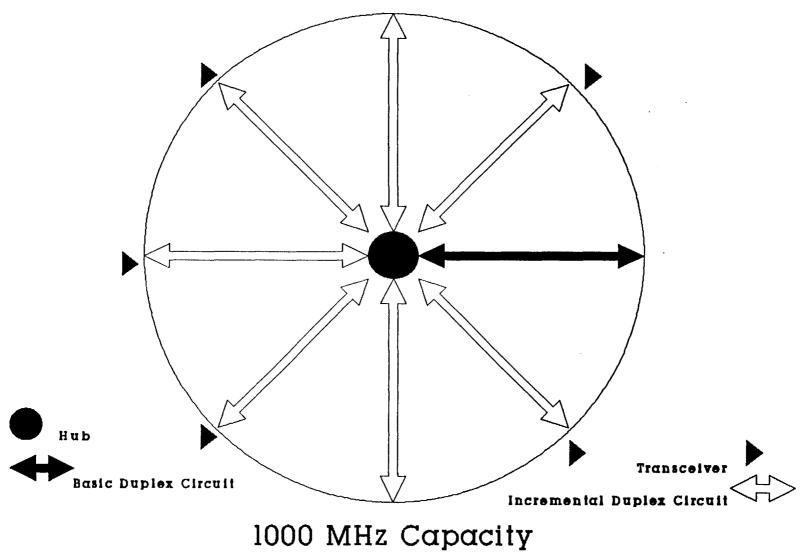
- A central hub costs approximately \$250,000.
- Each duplex customer transceiver costs approximately \$550.
- The investment per customer is independent of the number of customers obtained.
- The investment at customer premises is independent of the distance from the central hub.
  - Equipment may be reused (no sunk costs).



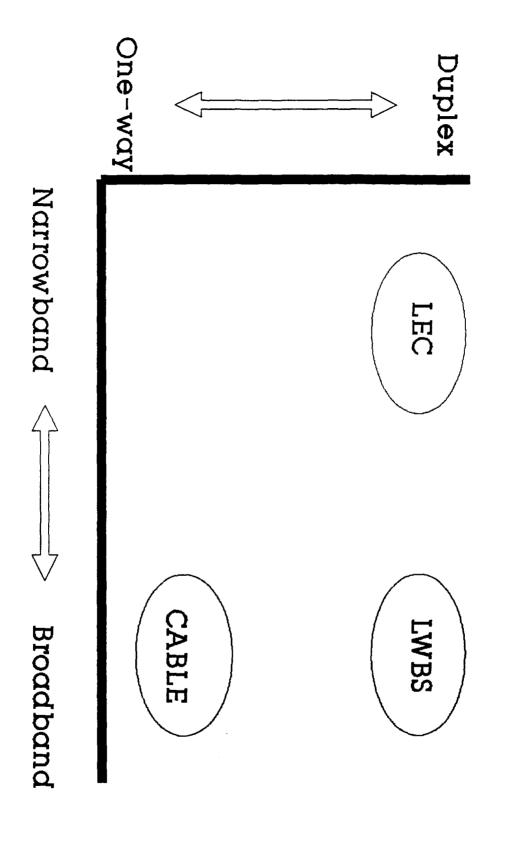
### Video/Phone's Marketing Concept

Utilize Suite 12's technology to meet demonstrated marketplace demands for innovative duplex voice, data and compressed/full video circuits which will be able to compete with and complement both cable and telco delivery.

### LWBS: A Multipoint Distribution Cell



# The Local Distribution Complex





### LWBS Circuits Can Be Used to Provide a Wide Variety of Services

- Full Motion TV
- Compressed Video Narrowcasting
- Videoconferencing
- Stereo Music
- Audiotex
- High/Low Speed Data
- Digital Data Transactions
- Facsimile
- Interactive Games



### LWBS Can Be Used For:

- Residential wireless cable television
- Alternative access (ALTS/CAPS)
- PCN/PCS microcell backbone
- Videoconferencing
- Vertical television



### Video/Phone Market Focus

### Non-Residential Vertical Distribution Networks

- Business Virtual Private Networks
- Shared Access Subscription Networks
- Video/Data Base Publishing
- Educational Television



### Business Applications Supported by LWBS

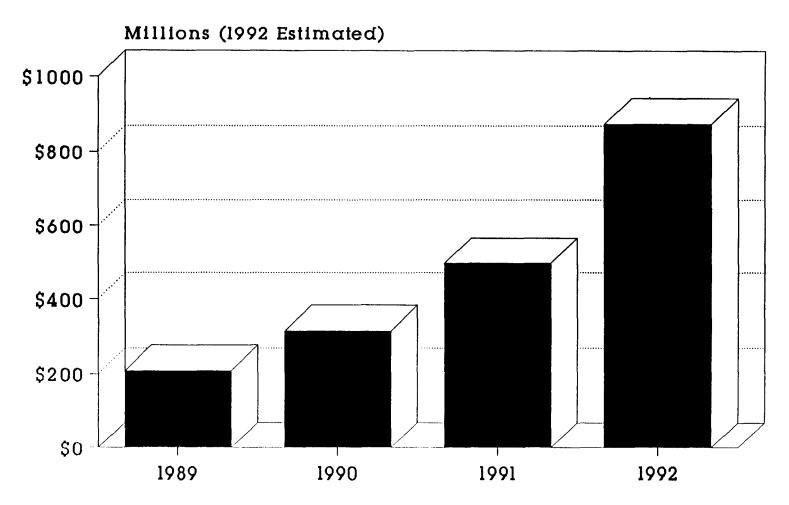
- Video communications
  - Videoconferencing
  - Business (Vertical) Television
  - Multimedia
    - Telecommuting
    - Telemedicine
    - Engineering
- Other services
  - Back-up for private lines
  - LAN interconnection
  - ALTS/CAPS



### Videoconferencing

- Focus is still on long distance use.
- In part, because of problems with local distribution.
- There is an enormous potential for multipoint conferencing (local and national).

U.S. Videoconferencing Sales of Equipment and Transport



Source: ITCA Press Release, 6/29/92

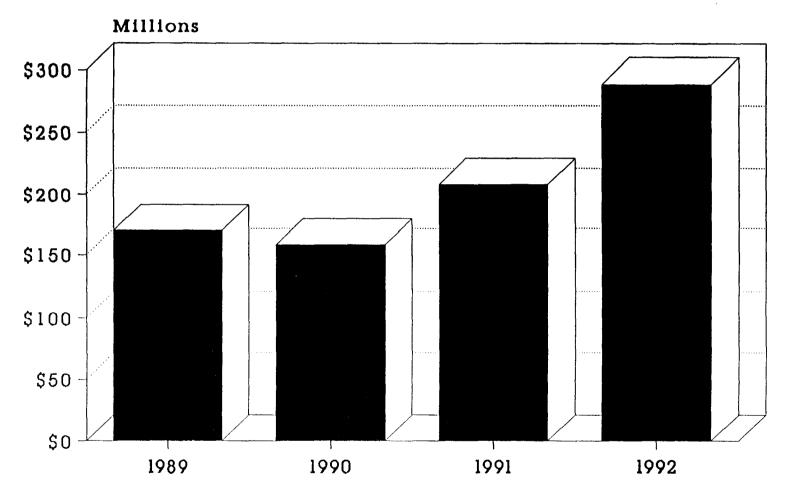


### Vertical Television

Local private television markets waiting to be served:

- Law Enforcement
- Fire Services
- Education and Training
- Local Government
- Health Care
- Child Care
- Banking
- Other Financial Institutions

### Vertical Television Sales of Transport and Services



Source: ITCA Press Release, 6/29/92



### Telecommuting

- People working from home (mainly selfemployed)
  - -35 million in 1990
  - -up 29% from 1989
- Full-time employees mixing commuting and telecommuting (at least one day/week)
  - -3.6 million in 1990
  - -up 21% from 1989
    - --Study cited in NTIA
      Infrastructure Report, 1991

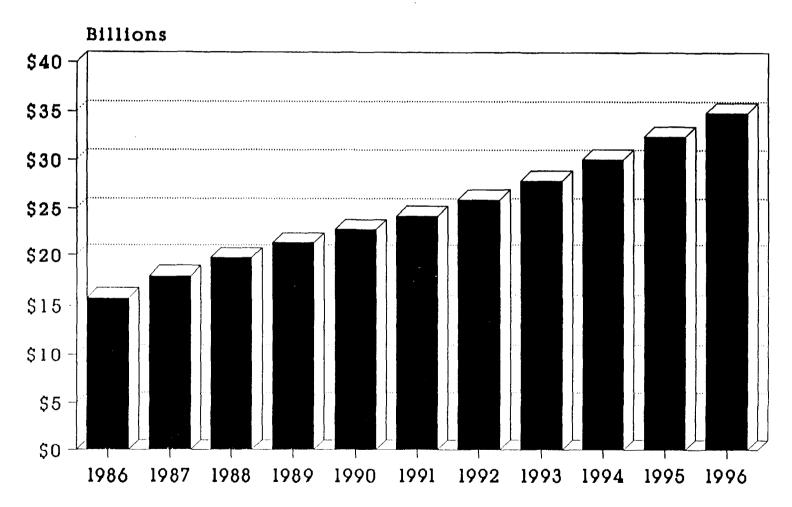
 $X^{(i)}: \mathcal{A} \to \mathcal{A}_{X^{(i)}}$ 



"...(G)overnment should craft telecommunications policies that allow maximum, continuing flexibility for users like health care providers....(T)he value of (telecommunications') contribution will depend primarily on the resourcefulness of health care professionals and other end users."

--NTIA Infrastructure Report, 1991

### Business Information Services Spending, 1986–1996



Source: Veronis, Suhler & Associates



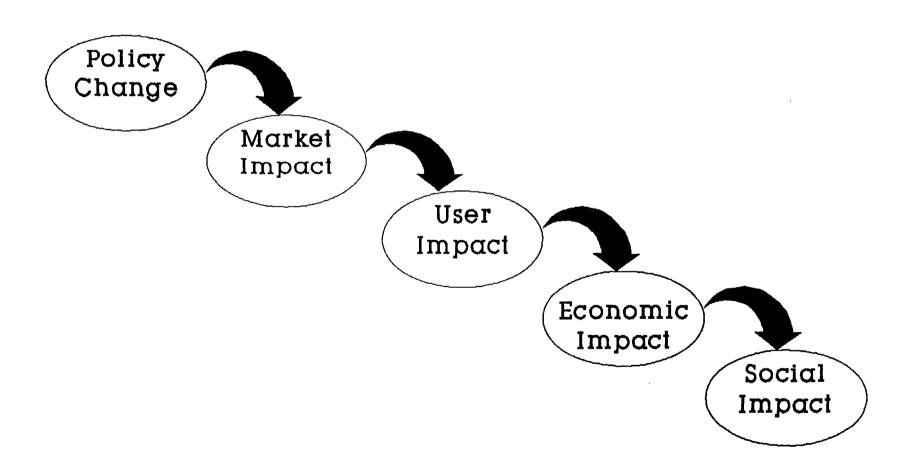
### Technology



Market Development

will create
Hundreds of
Local
Multipoint
Broadband Distribution Networks

### Impacts of Public Policy



down



"(L)arge users increasingly will require broadband networks for high speed data, video conferencing, high speed document transfer and new applications.... Existing, and even future ISDN, networks are insufficient to support these applications."

--Chief, Office of Plans and Policies Federal Communications Commission